

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Currently amended): A character recognition processing device, comprising:

a photographing unit which photographs a plurality of character images using a continuous photographing operation in which a continuous still image is captured and automatically divided into the plurality of character images;

an image fetching unit, which fetches image data of the plurality of[[a]] character images as an-objects to be recognized, the plurality of character images being photographed for recognizing at least one[[a]] character;

a cursor information output unit, which outputs cursor position information showing a position of a character frame for recognizing the at least one character corresponded with the plurality of character images;

a display that simultaneously displays a cursor, which includes the character frame, with the continuous still image at the time of capturing the continuous still image;

a layout analyzing unit, which collates the cursor position information with the fetched image data of the

plurality of character images to analyze an arrangement of the at least one character;

a character cutting unit, which extracts the plurality of character images on the basis of the analyzed result of the layout analyzing unit; and

a character recognizing unit, which recognizes the extracted plurality of character images as the at least one character and converts the extracted plurality of character images to character information.

Claim 2 (Currently amended): The character recognition processing device according to claim 1, wherein ~~when the character image as the object to be recognized is configured by a plurality of character images obtained by a continuous photographing operation,~~ the image fetching unit fetches the image data of the character images respectively by a prescribed area from all of the character images; and

wherein the layout analyzing unit collates the cursor position information with ~~each of the fetched image data of each of the plurality of character images separately to analyze the arrangement of the characters.~~

Claim 3 (Currently amended): The character recognition processing device according to claim 1, wherein ~~when the character image as the object to be recognized is configured by a plurality of character images obtained by a continuous photographing operation,~~ the image fetching unit fetches the image data of the character images respectively by a prescribed area from all of the character images; and

wherein the layout analyzing unit collates the cursor position information with the image data in which the plurality of fetched character images are connected together ~~to analyze the arrangement of the characters.~~

Claim 4 (Original): A portable terminal device having the character recognition processing device according to any one of claims 1 to 3.

Claim 5 (Currently amended): A portable terminal device, comprising:

a photographing unit, which photographs a plurality of character images using a continuous photographing operation in which a continuous still image is captured and automatically divided into the plurality of character images, wherein the plurality of character images include

at least one character ~~as an object to be recognized for recognizing a character;~~

an image fetching unit, which fetches image data of the photographed plurality of character images;

a cursor information output unit, which outputs cursor position information showing the position of a character frame for recognizing the at least one character corresponded with the plurality of character images;

a display that simultaneously displays a cursor, which includes the character frame, with the continuous still image at the time of capturing the continuous still image;

a layout analyzing unit, which collates the cursor position information with the fetched image data of the plurality of character images to analyze the arrangement of the at least one character;

a character extracting unit, which extracts the plurality of character images on the basis of the analyzed result of the layout analyzing unit; and

a character recognizing unit, which recognizes the extracted plurality of character images as the at least one character and converts the extracted plurality of character images to character information.

Claim 6 (Canceled)

Claim 7 (Currently amended): The portable terminal device according to claim 5, further comprising a recognized character display unit which displays, on said display, the character information as a recognized result by the character recognizing unit.

Claim 8 (Original): The portable terminal device according to claim 7, wherein the recognized character display unit individually selectively displays the character information as the recognized result by a prescribed character unit.

Claim 9 (Original): The portable terminal device according to claim 5, further comprising a recognized character storing unit which stores the character information as the recognized result obtained by the character recognizing unit.

Claim 10 (Original): The portable terminal device according to claim 9, wherein the recognized character storing unit stores the character information in a recognized character storing area.

Claim 11 (Original): The portable terminal device according to claim 9, wherein the recognized character storing unit registers the character information in a data base corresponding to a type of each character information when the type of the character information is any one of a telephone number, a mail address and a URL (Uniform Resource Location).

Claim 12 (Currently amended): The portable terminal device according to claim 5, further comprising a recognized character utilizing unit which utilizes the character information as the recognized result obtained by the character recognizing unit in accordance with a~~the~~ type of the character information.

Claim 13 (Currently amended): The portable terminal device according to claim 12, wherein when the type of the character information is a~~the~~ telephone number, the recognized character utilizing unit displays a transmitting screen to the telephone number.

Claim 14 (Currently amended): The portable telephone terminal device according to claim 12, wherein when the type of the character information is a~~the~~ mail address,

the recognized character utilizing unit displays a preparing screen for an electronic mail to the mail address.

Claim 15 (Currently amended): The portable terminal device according to claim 12, wherein when the type of the character information is a~~the~~ URL (Uniform Resource Locator), the recognized character utilizing unit displays a network connecting screen to the URL.

Claim 16 (Currently amended): The portable terminal device according to claim 5, wherein ~~the photographing unit has a function for continuously photographing the character image as the object to be recognized;~~
~~wherein when a plurality of the character images as the objects to be recognized are obtained by the photographing unit,~~ before the image fetching unit fetches the image data of the plurality of character images, the image data of the plurality of character images ~~that~~ are connected together; and

wherein the character recognizing unit recognizes the at least one character~~characters~~ of the image data of the connected character images to convert the image data of

the connected character images to the character information.

Claim 17 (Currently amended): The portable terminal device according to claim 5, ~~wherein the photographing unit has a function for continuously photographing the character image as the object to be recognized;~~

~~wherein when a plurality of the character images as the objects to be recognized are obtained by the photographing unit, the image fetching unit fetches the image data of the plurality of character images; and~~

wherein the character recognizing unit separately recognizes each of ~~the characters of the image data~~ respectively for the extracted plurality of ~~fetched~~ character images ~~to convert the image data to the~~ character information.

Claim 18 (Currently amended): The portable terminal device according to claim 5, wherein the character recognizing unit has a plurality of recognizing modes that each correspond ~~which is corresponded~~ with a type of ~~character information~~ ~~types of the characters as the~~ objects to be recognized; and

wherein the character recognizing unit carries out a character recognizing process suitable for the corresponding type of ~~the~~ character information in accordance with a preset recognizing mode.

Claim 19 (Currently amended): A character recognition processing method comprising the steps of:

photographing a plurality of character images as ~~an~~ objects to be recognized while simultaneously displaying each respectively ~~the~~ character image together with a cursor that includes a character frame for recognizing a character, wherein the plurality of character images are photographed using a continuous photographing operation in which a continuous still image is captured and automatically divided into the plurality of character images;

fetching ~~the~~ image data of the photographed plurality of character images;

outputting cursor position information showing the position of the character frame for recognizing the character corresponded with the plurality of character images;

collating the cursor position information with the fetched image data of the plurality of character images to analyze the arrangement of the character;

extracting the plurality of character images on the basis of the analyzed result of the arrangement of the character; and

recognizing the extracted plurality of character images as the character and converting the extracted plurality of character images to character information.

Claim 20 (Currently amended): A character recognition processing program in which the respective steps defined in claim 19 are executed by a computer, wherein said program is stored within a memory device that is accessible by the computer.